Application No.: 10/622,749

Office Action Dated: April 20, 2006

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously presented): A method for updating an image on a computer display

device, said method comprising:

logically dividing the image into a plurality of zones;

storing each zone of the plurality of zones by a starting point of each zone;

tracking revised zones using the starting point of each revised zone; and

updating only the revised zones on the image;

wherein each zone of said plurality of zones has the same dimensions and number of

pixels as the other zones.

2. (Original): The method of claim 1 wherein each zone of said plurality of zones is

predefined.

3. (Canceled)

4. (Canceled)

5. (Previously presented): The method of claim 2 wherein the number of zones

vertically aligned on the image is equal to the number of zones horizontally aligned on the

image.

6. (Previously presented): The method of claim 1 wherein the steps of logically

dividing the image into a plurality of zones, and tracking revised zones using the starting

point of each revised zone, are both performed by a graphical processing unit using a video

random access memory.

7. (Previously presented): The method of claim 1 wherein the steps of logically

dividing the image into a plurality of zones, and tracking revised zones using the starting

point of each revised zone, are both performed by a central processing unit using a system

random access memory.

Page 2 of 7

Application No.: 10/622,749

Office Action Dated: April 20, 2006

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

8. (Previously presented): The method of claim 1 wherein the step of updating only the revised zones on the image is performed by a graphical processing unit writing the revised zones from a video random access memory to a frame buffer.

- 9. (Previously presented): The method of claim 1 wherein the step of updating only the revised zones on the image is performed by a central processing unit writing the revised zones from a system random access memory directly to a frame buffer.
- 10. (Previously presented): The method of claim 1 wherein the steps of logically dividing the image into a plurality of zones and tracking revised zones using the starting point of each revised zone are both performed by a graphical processing unit in a video random access memory; and wherein the step of updating only the revised zones on the image is performed by said graphical processing unit writing the revised zones from said video random access memory to a frame buffer.
- 11. (Previously presented): The method of claim 1 wherein the steps of logically dividing the image into a plurality of zones and tracking revised zones using the starting point of each revised zone are both performed by a central processing unit in a system random access memory; and wherein the step of updating only the revised zones on the image is performed by said central processing unit writing the revised zones from said system random access memory directly to the frame buffer.
- 12. (Original): The method of claim 11 wherein said method is executed in conjunction with the use of a text-enhancement technology.
- 13. (Original): The method of claim 12 wherein said text-enhancement technology is a sub-pixel anti-aliaser.
- 14. (Original): The method of claim 1 wherein said method is executed in conjunction with the use of a text-enhancement technology.
- 15. (Original): The method of claim 14 wherein said text-enhancement technology is sub-pixel anti-aliaser.

Application No.: 10/622,749

Office Action Dated: April 20, 2006

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

16. (Original): The method of claim 1 wherein said method is executed on a computer system that favors a system-to-video flow of data traffic.

- 17. (Previously presented): The method of claim 1 wherein system random access memory used for logically dividing the image into a plurality of zones for tracking revised zones using the starting point of each revised zone is allocated at startup.
- 18. (Previously presented): A computer-readable medium having computer-readable instructions for updating an image on a computer display device, said computer-readable instructions comprising:

instructions for logically dividing the image into a plurality of zones; instructions for storing each zone of the plurality of zones by a starting point of each zone;

instructions for tracking revised zones using the starting point of each revised zone; instructions for updating only the revised zones on the image; and instructions for dividing the image into a plurality of zones each having the same dimensions and number of pixels.

- 19. (Original): The computer-readable medium of claim 18 further comprising instructions for predefining a plurality of zones.
 - 20. (Canceled)
 - 21. (Canceled)
- 22. (Previously presented): The computer-readable medium of claim 19 further comprising instructions for dividing the image into a plurality of zones wherein the number of zones in said plurality of zones vertically aligned on the image is equal to the number of zones in said plurality of zones horizontally aligned on the image.
- 23. (Previously presented): The computer-readable medium of claim 18 further comprising instructions for the graphical processing unit to logically divide the image into a plurality of zones in video random access memory and thereafter track those zones in said plurality of zones that are revised using the starting point of each revised zone.

Application No.: 10/622,749

Office Action Dated: April 20, 2006

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

24. (Previously presented): The computer-readable medium of claim 18 further comprising instructions for the central processing unit to logically divide the image into a plurality of zones in RAM and thereafter track those zones in said plurality of zones that are revised using the starting point of each revised zone.

- 25. (Previously presented): The computer-readable medium of claim 18 further comprising instructions for a graphical processing unit to update only a plurality of revised zones on the image by writing the plurality of revised zones from a video random access memory to a frame buffer.
- 26. (Previously presented): The computer-readable medium of claim 18 further comprising instructions for a central processing unit to update only a plurality of revised zones on the image by writing the plurality of revised zones from a RAM to a frame buffer.
- 27. (Original): The computer-readable medium of claim 26 wherein said method is executed in conjunction with the use of a text-enhancement technology.
- 28. (Original): The computer-readable medium of claim 18 wherein said method is executed in conjunction with the use of a text-enhancement technology.
- 29. (Original): The computer-readable medium of claim 18 wherein said method is executed on a computer system that favors a system-to-video flow of data traffic.
- 30. (Previously presented): The computer-readable medium of claim 18 wherein system random access memory used for logically dividing the image into a plurality of zones for tracking revised zones using the starting point of each revised zone is allocated at startup.
- 31. (Previously presented): A system for updating an image on a computer display device, said system comprising:

a memory;

a shadow memory in said memory, said shadow memory comprising a plurality of zones;

a zone grid in said memory for tracking by a starting point of each zone whether changes occur in each zone of said plurality of zones;

Application No.: 10/622,749

Office Action Dated: April 20, 2006

PATENT REPLY FILED UNDER EXPEDITED PROCEDURE PURSUANT TO 37 CFR § 1.116

a processing unit for rendering revisions to said shadow memory and tracking by a starting point of each zone in said zone grid which zones of said plurality of zones are revised:

a frame buffer to which the processing unit, based on the information stored in the zone grid, writes only those zones that have been revised from the shadow memory to said frame buffer; and

a display device coupled to said frame buffer.

- 32. (Original): The system of claim 31 wherein said processing unit is a central processing unit.
- 33. (Original): The system of claim 31 wherein said processing unit is a graphical processing unit.
- 34. (Original): The system of claim 31 wherein said memory is system random access memory.
- 35. (Original): The system of claim 31 wherein said processing unit is video random access memory.
- 36. (Previously presented): A system for updating an image on a computer display device, said system comprising:

means for logically dividing the image into a plurality of zones;

means for storing each zone of the plurality of zones by a starting point of each zone; means for tracking revised zones using the starting point of each revised zone; and means for updating only the revised zones on the image;

wherein each zone of said plurality of zones has the same dimensions and number of pixels as the other zones.

- 37. (Canceled)
- 38. (Canceled)